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THE FIFTH FIVE YEAR PLAN MODEL — A COMMENT

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The Approach to the Fifth Plan<sup>1</sup> considers the removal of poverty and the attainment of self-reliance as the two major tasks of this Plan. These objectives are to be realised through a re-distribution of consumption from the top 30 per cent to the bottom 30 per cent of the population and by a reduction in net foreign aid inflow to naught by the terminal year of the Fifth Plan.) <sup>2</sup> A Technical Note on the Approach to the Fifth Plan<sup>2</sup> ~~has now been made available~~ which describes the framework of calculation adopted for determining the numerical magnitudes of the plan incorporating the above <sup>mentioned</sup> objectives in the mathematical model constructed for this purpose. <sup>3</sup> This Technical Note states:

"The heart of the framework of reasoning consists in applying an open static Leontief model for ensuring terminal year consistency amongst the output levels of different sectors. For arriving at terminal year investment levels, a macro-economic growth model has been used. For estimating consumption, a special consumption model has been developed which constitutes an innovation in the context of inter-industry model building. Imports have been endogenously estimated through constructing suitable import coefficient matrices".

This summarises the logic of the model adopted for the Fifth Plan. Thus, the model has three parts: a macro-model, primarily for estimating investment, an input-output model for estimating sectoral output levels and imports, and a consumption model for deriving sectoral consumption levels under alternative assumptions. <sup>2</sup>

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This note attempts an analysis of the assumptions, techniques results made available in the Technical Note in order to understand their implications for attaining the stated objectives of the Fifth Plan. In an exercise of the nature attempted in the Technical Note it is important to bear in mind the sensitivity of the final result to the data base on which it is constructed. In this note, however we have not attempted any examination of the statistical data employed and their limitations.

Since the Technical Note does not provide in clear and unambiguous language, the step-by-step details on the formulation and the solution of the model we first summarise the model. According to our understanding, it is presumably solved in the manner indicated below.

### THE MODEL

#### Step One:

The gross domestic product at factor cost for the terminal year is estimated by assuming an average annual rate of growth of 5.5 per cent to the base year figure. By adding the total indirect taxes to the figure thus obtained, the gross domestic product at market prices is estimated. Next, the total gross investment for the entire plan period is estimated by applying a global capital-output ratio to the difference in the gross domestic product at market prices between the terminal year and the base year. The yearly gross investment figures at market prices are then obtained by choosing an appropriate annual rate of increase to the base-period investment which will make them consistent with the aggregate amount of investment derived earlier. Exports and public consumption are exogenously given. If the value of imports and of private consumption are known, the estimates of gross domestic income and of net foreign aid can be obtained.



### Step two:

While the annual gross investment is estimated by employing the equations of the macro-model, it appears that imports and private consumption could be derived only by solving simultaneously a set of equations obtained by combining some from the macro-model with some from the input-output sub-model. Such an integrated solution also ensures consistency between the macro variables and the micro-or/sectoral estimates. The solution of this system of simultaneous equations will provide the values of imports and of aggregate private consumption.

### Step Three:

The aggregate private consumption expenditure derived thus is utilised in the final solutions of the model, where estimates of sectoral consumption, of outputs and of imports are obtained. The aggregate private consumption expenditure is divided into expenditure in the rural and urban sectors. The total consumer expenditure of each of these sectors is further allocated among 27 expenditure classes on the basis of the log-normal distribution fitted to the consumer expenditure data obtained through the 22nd Round of the National Sample Survey. The commodity composition of consumption for each of the expenditure classes is obtained by applying base-year consumption proportions to the total expenditure of the respective expenditure class in the terminal year. The total private consumption expenditure on each commodity is then obtained by aggregating the expenditures of all classes on that commodity.

Having estimated the private consumption demand of each commodity/sector, the gross domestic value of output of that commodity/sector can be obtained by solving the equations of the input-output model. In the input-output model the requirements of final use of a commodity/sector for public consumption, for investment and for exports are specified exogenously. The stock demand is specified by another set of equations which can be combined with the input-output model for the estimation of the gross values of outputs. The estimated gross values of outputs can in turn be utilised to obtain the sectoral import requirements by solving the import equations.

#### RE-DISTRIBUTION OF CONSUMPTION

4 (The salient features of the models of the type described above are well-known. It is therefore not necessary here to enquire into the dynamic properties of this model or the time-paths of the solutions of the equation system. However, the Fifth Five-Year Plan model incorporates a novel feature which was ignored in similar earlier models. The implications of re-distribution of consumption from the richer sections to the poorer sections of the community, more specifically for the growth of sectoral outputs and of imports, have been explicitly introduced into this planning model. This is said to have demonstrated that such re-distribution of consumption is not only essential for "removing poverty" but helps to attain "self-reliance". The Approach Paper had in fact the following interesting (and highly significant) observation:<sup>4</sup>



"An important finding from the exercise is that reduced inequality in consumption expenditure leads to a reduction in the total demand for imports. This lends support to the hypothesis that a part of the requirements for net aid stems from a pattern of consumption weighted in favour of the more affluent sections. Self-reliance, just as removal of poverty, calls for re-distribution of consumption in favour of the low-income groups. Correspondingly any elitist orientation of the production pattern of consumer goods has to give way to emphasis on production of articles of mass consumption".

Since re-distribution plays such an important role in the Fifth Plan, it is necessary to examine the way in which this assumption is incorporated into the model and the manner in which it affects the numerical calculations.

The re-distribution assumption is introduced into the calculations through a consumption sub-model. As indicated earlier, the total private consumption is first broken up in this consumption sub-model between the urban and the rural sectors. It is also assumed that the distribution of per capita total consumption expenditure in both sectors follows log-normal distribution. For this distribution, the degree of inequality as measured by the Lorenz Ratio depends only on the variance of the distribution. When the degree of inequality remains the same, this parameter of the distribution is unchanged. On the other hand, in the preferred variant, where the per capita average consumption of the poorest 30 per cent of the population would amount to Rs.36.64 and Rs.39.64 respectively, instead of Rs.26.33 and Rs.28.44 in the rural and urban sectors in 1978-79, the degree of inequality would have changed. Since aggregate private consumption expenditure and the consumption expenditure of the lowest 30 per cent of the population are known, a fresh estimate

of the variance of a log-normal distribution corresponding to these data is derived. On the basis of this parameter, the distribution of consumption expenditure among the 27 expenditure classes is carried out. Within each expenditure class, the expenditure on each of the 66 commodities is assumed to be a fixed proportion of the expenditure of that class. This proportion is the same as in the base year 1973-74, and it is invariant with respect to changes in the inequality in the distribution of total consumption expenditure.)

*T.N. Krishnan notes that* (While the consumption sub-model is described as the most innovative part of the Fifth Plan model, it is probably the most confusing section in the Technical Note. The technique adopted for deriving the consumption expenditure with redistribution also appears to be rather crude and somewhat unsatisfactory. This method for deriving the new distribution by specifying the desired levels of per capita consumption expenditure for the bottom 30 per cent of population leads to a straight jacket solution of the problem.<sup>5</sup> It is known that for any normal distribution with a known mean the  $p^{th}$  percentile depends only on the variance. The distributions used in the Fifth Plan models have known (for all practical purposes although they are estimated) means and the variance is estimated from the location of just one percentile viz.  $p_{0.30}$  corresponding to two distributions: the expenditure and the share of the expenditure (i.e. the first moment distribution). It is obvious that this procedure is somewhat like estimating the parameters of the regression  $Y = a + bX$  on the basis of only two pairs of observations.)

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viz.  $(Y_1, X_1)$  and  $(Y_2, X_2)$  by direct algebraic solution. Needless to say, such a method will lead to extremely inefficient estimates and attribute properties to the derived distribution which they actually might not possess.

Ignoring for the present such biases in the derived consumption distribution, we have attempted derivations of the expenditure distributions for the rural and urban sectors under the two alternative assumptions in order to bring out the full implications of the re-distribution assumption. The Technical Note has not provided the basic data relating to the expenditure distribution for the 27 expenditure classes to which the total population of these two sectors are grouped. On the other hand, it is possible to derive the expenditure distributions for the decile classes of both sectors on the basis of information provided in that document. Log-normal distributions were fitted to these decile distributions and the corresponding variances were estimated. With the given mean and the estimated variance, expenditure distributions were derived for the 27 expenditure classes. Tables (1 and 2 give) the percentage distribution of population and of consumption expenditure for the rural and urban sectors under the two assumptions viz. without re-distribution and with re-distribution.

A comparison of the distributions reveals the nature of the shift in consumption when re-distribution is assumed to take place. In the rural sector, about 28 per cent of the population belongs to the expenditure classes falling below the per capita monthly expenditure class Rs.30-35 when no change in inequality is assumed, but





this percentage declines to about 10 per cent when re-distribution is assumed to take place. The rest of the population which were earlier in this class, about 18 to 20 per cent, are pushed up to the expenditure classes ranging from Rs.35 to Rs.45. Similarly, the percentage of population exceeding Rs.100 per capita monthly expenditure formed about 10 per cent without re-distribution in consumption, but their percentage declines to 3 per cent of the rural population when re-distribution is assumed.

In the case of the urban sector, about 29 per cent of the population falls below the expenditure class Rs.35-40 without re-distribution, but this figure declines to about 14 per cent with re-distribution. The percentage of population exceeding Rs.100 per capita monthly expenditure declines from 20 per cent to only 15 per cent with re-distribution.

Examination of tables 1 and 2 also provides some clues to the likely effects of re-distribution of consumption. It appears that while expenditure distribution is considerably altered in the rural sector, the contemplated changes in the urban sector are not so significant. In the urban sector, 12.26 per cent of the population had monthly per capita expenditures exceeding Rs.120, but this percentage declines to only 7 per cent when re-distribution is envisaged. For the rural sector, 23 per cent of the population were grouped in the monthly per capita expenditure class 90-95 and above when no change in inequality was contemplated, but this declines to 6 per cent with re-distribution. Since the bulk of the total population belongs to the rural sector, the effort needed to bring about re-distribution will have to make a greater impact on the rural sector.

It has been pointed out in the Approach Paper as well as in the Technical Note that the sectoral growth rates are only marginally different under the alternative variants. The Approach Paper says:<sup>6</sup>

"An important point emerging from the exercises was that the inter-sectoral patterns of growth in the two variants were broadly similar at the level of aggregation reflected in 66 x 66 table. In many cases, the differences in the rates of growth of individual sectors were marginal".

How does this happen in the model in spite of shifting a large proportion of the population from the bottom to higher expenditure group? The gross value of domestic output, as we know, will equal the sum of a number of items viz. output used for intermediate inputs, exports, investment, public and private consumption. Since the values of exports, investment and of public consumption are exogenously specified and their sectoral distributions are the same for a variant with respect to a given specific import substitution assumption, the gross value of output will be different only if the demand for private consumption is altered. Re-distribution can bring about changes in private consumption for either of two reasons: First, if the commodity composition is significantly different in different expenditure classes then a re-distribution in consumption can completely alter the composition of the commodity consumption vector. Or, the commodity structure of consumption may remain similar in the different expenditure classes, but the proportions in which they are consumed could be significantly different for the various expenditure classes. In this case also some changes in the aggregate demand for different



commodities for private consumption could occur. Thus by examining the commodity composition of consumption as well as the proportions of total expenditure spent on them by the different expenditure classes, it seems possible to provide an explanation for the similarity in the sectoral growth rates under the different variants.

(The commodity composition of consumption for the different expenditure classes reveals that for about 80 per cent of the population in both the rural and the urban sectors, it comprises of practically the same number of items. In the urban sector, expenditure on motor vehicles is the only additional item for the top few expenditure groups. Besides, a detailed examination of the expenditure proportions indicates that they are almost similar over wide ranges of the expenditure distribution. This implies that the degree of precision that can be obtained for the estimates of sector/commodity for private consumption is almost illusory since these estimates will not be significantly altered even if number of expenditure classes were fewer. In fact, the N.S.S. expenditure data which to some extent formed a basis of this classification in the Technical Note are generally available only for 12-13 size classes. There is also another reason why possibly the pattern of sectoral growth rates could not be much different under the different variants. In the relevant range of the distribution where the commodity composition remains the same, the aggregate private consumption expenditure is not altered in any manner as a result of re-distribution. The decrease in the proportion of expenditure of the top expenditure classes is

compensated by increases in the percentages of aggregate expenditure in the middle ranges. Since commodity expenditure proportions are also more or less similar for wide ranges of expenditure in the relevant classes, it is found that sectoral private consumption expenditures are rather insensitive for many commodities to changes in the distribution of total expenditure.)

How does re-distribution affect aggregate private consumption and total imports in the different variants of the model? In the light of the above discussion one can see that these effects of re-distribution are likely to be negligible. Among the variables involved in the derivation of aggregate private consumption, it will be noticed that the values of gross investment, exports and of public consumption are exogenously specified and are the same for all the variants of the models. However, since imports are different for each of the variants, the values of private aggregate consumption and of gross domestic savings are determined primarily by the level of imports. So, the higher the amount of net imports of goods and services, the lower will be the required volume of gross domestic savings and the higher the amount available for private consumption.) Table 3 provides the values of the important macro-variables derived through the model under different assumptions. To discern the effects of re-distribution (item 4) and on imports (item 8), a comparison of these figures under either columns (1) and (3) or columns (2) and (4) is sufficient. It will be noticed that redistribution leads to a reduction of only Rs.43.5 crores in both these items. Since values

of investment, exports and of public consumption remain the same, a reduction in imports leads also to an identical reduction in private consumption.



### (IMPORT SUBSTITUTION)

(Eventhough the net effects of re-distribution of consumption on imports appears negligible, <sup>7 in English</sup> one might argue that when import requirements are disaggregated at the sector/commodity level, the shift from items required for the production of luxury items to items needed for expanding the production of commodities of mass consumption would become apparent.) Of course, (if imported inputs are still needed for the production of the items of mass consumption, the postulated effect of 're-distribution' on 'self-reliance' cannot be claimed. Further, the 66 x 66 input-output table does not permit any discrimination between the luxury and non-luxury items of consumption since at this level of aggregation most of the items of consumption appear in the budgets of the bulk of the population. Besides, the lion's share of the aggregate private consumption is attributed to the rural sector.) It is true that (in the model a drastic re-distribution of expenditure is envisaged for this sector.) but do we have (enough information on the share of the import component <sup>is not available</sup> in the consumption of the upper income groups of this sector?) Can we safely assume that the bulk of the production of luxury goods are consumed in the rural sector? (An examination of the commodity composition and of expenditure proportions in the urban sector also fails to indicate how imports can significantly decline due to re-distribution under these circumstances.)

If the numerical results given in Table 3 for the different macro-variables under various assumptions are compared, it is seen that the substantial reduction achieved for imports is solely due to import substitution. (Under Variant II, i.e. with reduction in inequality, the value of imports in 1978-79 is projected to be Rs.3523.9 crores in the absence of import substitution, but it is lowered to Rs.2966.7 crores when import substitution is taken account of. The reduction in imports arising out of import substitution is identical under Variant I also. It will also be noticed that the reduction in aggregate consumption and consequently the addition to gross domestic savings will all be equal to the amount by which imports decline. Thus it appears that the objective of self-reliance can be achieved only if import substitution on the scale as conceived in the Technical Note is achieved.)

If import substitution plays such an important role in the model one should ask two crucial questions: First, is the import substitution a consequence of the reduction in inequality in consumption? Second, if it is unrelated to the reduction in inequality in consumption, how's import substitution determined in the model? From our examination of the model, it appears to us that import substitution is not the consequence of a change in the inequality parameter for the reasons stated above. Such a link-up is possible only if there is a shift from the pattern of consumption and of production, where imported inputs are utilised to another where only domestically produced inputs are involved. But, (the consumption sub-model assumes that the base-year composition of consumption and expenditure

proportions will also hold good in the terminal year for each of the expenditure classes. Under these assumptions) we have already noted that the pattern of consumption is unlikely to change significantly as a result of re-distribution. Comparing imports in columns (1) and (3) <sup>in Table in the annexure</sup> where the imported input components are assumed to be the same as in 1973-74, it is noticed that with-re-distribution only a marginal change occurs in the volume of imports)

If the above surmise is correct, then it is important to enquire how import substitution is handled in the model. In this connection, the Technical Note states:<sup>7</sup>

"For determining the import sector, we have utilised two import co-efficient matrices. The first is a 66 x 66 technological matrix indicating the amount of import used as a current input in the production process. The second matrix corresponds to the proportion of final use of a particular commodity/sector/ which is met at the moment by imports".

The total import of a commodity is thus broken up into imports for intermediate use, for private consumption, for public consumption and for investment. The imports for intermediate use can be estimated when the values of gross outputs are known. Similarly, since the import components of private and public consumption and of investment are assumed to be fixed proportions of each of these items, these can also be estimated.

Under the above assumptions and conditions, import substitution can be handled in a very simple manner. The technological import coefficient matrix can be altered in such a manner as to reduce the import requirements of a commodity/sector/ for intermediate use. (Just as imported inputs for domestic production can be reduced in

the manner described just now, it is possible to cut down the import component of final demand by altering the proportions of import and of domestic components in the final demand). Since the input-output matrix represents given technological relationships, a reduction in the import coefficient will however have to be compensated by an equivalent increase in the domestically produced input coefficient so that the technological matrix remains the same. Of course this implies that if the particular imported input is not being produced now, capacity is to be created for its production. Such capacity creation may not be necessary if the domestic industry is already producing the identical input and there is some excess capacity; otherwise, provision has to be made for the additional investment required for import substitution.

Import substitution is handled in the Fifth Plan model precisely in the above manner. The import coefficient matrix and the import proportions are derived for the base year of the plan, 1973-74. In the variants of the model where no import substitution is envisaged, the same base-year matrix and proportions are employed to estimate the sectoral and hence the total value of imports. In the other variants of the model, where import substitution is also taken into account, both the import coefficient matrix as well as the import proportions for final use have been altered. In the import-coefficient matrix, the coefficients have been revised downwards with a corresponding equal upward adjustment of the domestic-input coefficients such that the total coefficient matrix remains the same in all cases. The import proportions relating to final use also have been adjusted





downwards thus resulting in a similar increase on the side of domestic contribution to final use. After adjusting these coefficients, the model is solved for sectoral imports assuring consistency with the other variables of the system. Table 4 provides the import requirements for various end-uses without and with import substitution. (The detailed commodity/sector/wise import estimates are provided in the Appendix). It will be noticed that the bulk of the fall in imports is achieved by reducing the imports required for intermediate use and for investment.

When the import coefficients and proportions are altered in this manner there is not much sanctity to the claim made in the Technical Note about imports being estimated endogenously in the model. The Technical Note makes the following observation on this matter:

"The sectoral imported inputs have been estimated endogenously in the model by using the same import coefficient matrix as for the base year, while import content of the final use has been estimated by the base year matrix of proportions of the final use of imported goods and services. The import coefficients and proportions have, however, been reduced suitably in cases of import substitution, the extent of the reduction being judged by the feasibility of increased domestic production of the individual sector. The reduced amount of each of the coefficients and proportions have been added to the corresponding domestic part". (italics added)

It is of course possibly by suitably modifying these coefficients and proportions to derive any desired figure for imports. The contention that these adjustments have been made by taking into account the feasibility of increased domestic production of the individual sectors ~~e--~~and the implicit claim (not quite but without which their conclusion

would not follow) made by the authors that such feasibility would be greater when consumption is re-distributed as in Variant II — cannot be verified or evaluated by us since the basis or the data required for such verification have not been provided in the Technical Note.

### (TREATMENT OF FIXED INVESTMENT)

As mentioned earlier, investment is estimated in the model through a Harrod-Domar type of equation. The value of the incremental capital-output ratio is taken to be 3.14 for fixed investment which rises to 3.43 when inventories are also included. Since the average annual rate of growth of gross domestic product is assumed to be 5.5 per cent for all variants, with and without import substitution the incremental output between the base and terminal years will be the same. Since the same aggregate incremental capital-output ratio is used in all the variants, the value of gross investment also has to be the same in all the variants. Besides, the sectoral composition of investment is also assumed to be invariant with respect to the composition of gross output or the magnitude of import substitution. The Technical Note states thus:

"The same sectoral composition of the gross fixed investment in 1978-79 has been used for different cases with alternative growth rates in gross domestic product, though the total gross fixed investment is different for the cases with different growth rates in gross domestic product."

The fixity of the relative share of the different sectors in investment may be justified on the ground that the composition of the gross outputs are not significantly different under the altern

variants of the model. But, one wonders why this should still be true when import substitution would be carried out.) Is it possible to expand the output of the import substituting sectors without a change in the sectoral composition of investment or of total investment itself? (If capacity already exists in the domestic sector to replace the imported inputs, then how can we explain the base-year imports of these products and the import coefficient matrix based on the same? (The relation between import substitution and investment is not at all clear from the Technical Note.)

#### CONCLUSION

This note has attempted an analysis of some of the assumptions and results underlying the basic formulations of the Fifth Five-Year Plan. It is, however, true that this note has excluded from its purview a probe into the financial resources needed for the Plan or the assumptions on which such estimates are built up. We have mainly focussed our attention only on two aspects of the Plan, viz. the implications of re-distribution of consumption and of import substitution. The Fifth Plan model is highly interesting since it is the first time that a model has cared to demonstrate the implications of re-distribution of consumption for the solution of the problem of poverty. Since the bulk of the total population and the lion's share of total expenditure are accounted for by the rural sector, the desired degree of re-distribution at the national level can be achieved only by proposing a much greater degree of re-distribution in the rural sector. And this appears to be precisely

the strategy adopted for the Plan. While we are fully aware of the causes responsible for inequality in the distribution of consumption in the rural sector and the policy instruments which can bring about the desired change in this, our experience in the past shows how insurmountable can be the obstacles to bring this about. We know that land reforms and taxation of agricultural incomes can go a long way in this matter. But, the luke-warm attitude towards land reforms and the posture adopted towards the Raj Committee Report are sufficient indications on the likely course of action in this matter.

Our analysis of the model has brought out the lack of any relations between 're-distribution' and 'self-reliance'. Our analysis shows that (import saving is achieved in the preferred variant only by altering a priori the import coefficients) Our (calculations indicate that 56 per cent of the reduction in imports as a result of import substitution is brought about by reducing the import proportions for investment requirements. Since sectoral investments are exogenously specified and also the import proportions of sectoral investments are similarly altered, one is puzzled by the claim made in the Approach Paper that redistribution of consumption also leads to a decline in import requirements. The Technical Note fails to explain the causal relationships between these two.) Our own analysis indicates that a substantial reduction in the import bill is achieved only by altering the coefficients and the proportions and thus casts some doubt on the claim made by the Planning Commission.



## NOTES

1. Approach to the Fifth Plan, 1974-79, Government of India, Planning Commission, January 1973 (Henceforth referred to as Approach Paper)
2. A Technical Note on the Approach to the Fifth Five Year Plan of India (1973-74 to 1978-79), Government of India, Planning Commission, April 1973 (cyclostyled) (Henceforth referred to as Technical Note)
3. Technical Note, p.3.
4. Approach Paper, p.21, para 17.
5. I am indobted to Shri N. Krishnaji for pointing out the following analogy.
6. op.cit. p.21, para 15.
7. Technical Note, p.19.
8. Ibid. p.7.

Table 1: EXPENDITURE CLASSWISE DISTRIBUTION OF TOTAL PRIVATE CONSUMPTION  
IN THE RURAL SECTOR - 1978-79

Expenditure Class	Without Redistribution			With Redistribution		
	Percent- age of popu- lation	Percent- age of expenditure	Monthly average expenditure	Percentage of popula- tion	Percentage of expendi- ture	Monthly average expenditure
0-10	0.21	0.0319	8.57	0.063019	0.063019	4.17
10-15	1.45	0.34	13.28	0.02706	0.001715	13.83
15-20	3.72	1.17	17.81	0.15	0.05	18.78
20-25	6.03	2.41	22.97	0.98	0.40	23.10
25-30	7.67	3.73	27.54	3.03	1.50	28.01
30-35	8.48	4.87	32.46	6.03	3.49	32.75
35-40	8.61	5.70	37.50	8.99	5.97	37.57
40-45	8.22	6.17	42.51	1.03	8.31	42.63
45-50	7.60	6.36	47.40	1.73	9.84	47.46
50-55	6.80	6.29	52.40	1.32	10.50	52.49
55-60	6.01	6.10	57.49	0.11	10.26	57.42
60-65	5.22	5.75	62.39	8.55	9.34	61.81
65-70	4.48	5.34	67.52	6.97	8.29	67.30
70-75	3.85	4.91	72.25	5.46	6.98	72.34
75-80	3.24	4.44	77.60	4.19	5.73	77.37
80-85	2.76	4.04	82.94	3.13	4.56	82.43
85-90	2.35	3.65	88.01	2.32	3.59	87.59
90-95	1.98	3.21	91.85	1.70	2.77	92.16
95-100	1.68	2.89	97.40	1.23	2.10	96.54
100-110	2.63	4.85	104.44	1.51	2.80	104.93
110-120	1.87	3.78	144.54	0.77	1.56	114.78
120-130	1.35	2.98	125.10	0.39	0.86	124.92
130-140	0.97	2.32	135.50	0.1952	0.4588	133.00
140-160	1.23	3.22	148.18	0.1487	0.3881	147.64
160-180	0.67	1.98	167.24	0.0383	0.11371	167.68
180-200	0.37	1.23	188.58	0.0102	0.03402	187.73
Above 200	0.52	2.24	243.99	0.004024	0.01537	216.14

Table 2

EXPENDITURE CLASSWISE DISTRIBUTION OF TOTAL PRIVATE  
CONSUMPTION IN THE URBAN SECTOR, 1978-79.

Expendi- ture Class	With Redistribution			With Redistribution		
	Percentage of population	Percentage of Expenditure	Monthly Average Expenditure	Percentage of population	Percentage of Expenditure	Monthly Average Expendi
0-10	0.30	0.03	7.01	0.0000068	0.0000008765	9.01
10-15	1.40	0.26	13.02	0.03265	0.000063463	13.62
15-20	3.15	0.78	17.36	0.28527	0.00074106	18.20
20-25	4.83	1.55	22.50	1.0574	0.3464	22.95
25-30	5.76	2.29	27.88	2.403	0.9531	27.70
30-35	6.47	3.00	32.52	4.074	1.901	32.60
35-40	6.59	3.58	37.53	5.677	3.045	37.51
40-45	6.60	3.99	42.40	6.91	4.204	42.62
45-50	6.28	4.26	47.57	7.73	5.24	47.40
50-55	5.93	4.43	52.39	7.96	5.97	52.54
55-60	5.46	4.48	57.54	7.87	6.46	57.50
60-65	4.98	4.42	62.24	7.48	6.67	62.47
65-70	4.50	4.31	67.16	7.04	6.61	65.70
70-75	4.04	4.18	72.55	6.01	6.41	74.70
75-80	3.60	3.98	77.53	5.46	6.01	77.10
80-85	3.25	3.82	82.42	4.75	5.58	82.29
85-90	2.87	3.59	87.71	4.07	5.08	87.42
90-95	2.56	3.37	92.31	3.49	4.63	92.91
95-100	2.25	3.12	97.23	2.96	4.12	91.51
100-110	3.81	5.69	104.72	4.56	6.78	104.16
110-120	3.01	4.92	114.61	3.17	4.20	114.90
120-130	2.37	4.23	125.14	2.19	3.91	124.85
130-140	1.87	3.60	134.98	1.51	2.888	134.35
140-160	2.69	5.72	149.10	1.73	3.676	148.70
160-180	1.73	4.16	168.59	0.81	1.961	168.70
180-200	1.13	3.05	189.22	0.39	1.046	188.70
Above 200	2.47	9.19	260.88	0.37	1.229	229.70

Table No.3

## MACRO-ECONOMIC PROJECTIONS FOR 1978-79

(Rs. crores at 1971-72 prices)

	VARIANT I		VARIANT II	
	Without reduction in inequality and without import substitution (1)	Without reduction in inequality and with import sub- stitution (2)	With reduction in inequality and without import substitution (3)	With reduction in inequality and with import substitution (4)
1. GDP at factor cost	56299.9	56299.9	56299.9	56299.9
2. Indirect taxes	7089.0	7089.0	7089.0	7089.0
3. GDP at market prices	63388.9	63388.9	63388.9	63388.9
4. Private consumption (at market prices)	45572.3	45214.0	45728.9	45171.7
5. Public Consumption (at market prices) including item 9.2	7467.0	7467.0	7467.0	7467.0
6. Gross investment	10939.2	10939.2	10939.2	10939.2
7. Exports (f.o.b.)	2777.7	2777.7	2777.7	2777.7
8. Imports (c.i.f.) including item 9.2	3567.4	3009.0	3523.9	2966.7
9. Net imports of goods and services (8-7)	789.6	231.3	746.2	189.0
9.1: Net imports of goods and non-factor services	402.6	-155.7	359.2	-198.0
9.2: Current transfers and other invisibles (net)	387.0	387.0	387.0	387.0
10. Capital account payment and out-goes	451.0	451.0	451.0	451.0
11. Capital account gross receipts	74.0	74.0	74.0	74.0
12. Capital account deficit	377.0	377.0	377.0	377.0
13. Balance of payments (up both on current and capital accounts combined)	1166.6	-608.3	1123.2	566.0

Source: Technical Note: base on tables 2 and 3



Table 4:ESTIMATION OF IMPORTS WITH REDUCTION IN  
INEQUALITY

<u>Items</u>	<u>Without Import substitution</u>	<u>With Import substitution</u>	<u>Difference Col.(2)-Col.(3)</u>
Intermediate use	18934.6	16871.7	2062.9
Private consum- ption	4467.4	4112.2	355.2
Public consumption	3937.1	3907.5	29.6
Gross fixed investment	7844.5	4775.8	3068.7
Total imports	35183.6*	29667.2	5516.4

\*The comparable estimate given in the Technical Note gives the value of imports as Rs.3523.9 crores. The estimate attained by us differs only Rs. 6 crores which might be attributed to the errors resulting from hand calculations.

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